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ABSTRACT

This study was designed to determine whether personality need factors are related to college student satisfaction. Two-hundred twenty-six students in a small, church related college completed instruments designed to measure personality need factors and college student satisfaction. Canonical correlation analysis was used to analyze the student responses. Personality need factors and college student satisfaction were found to be significantly correlated (p less than .0001). The personality need factors which seem to contribute most to the relationship with general college student satisfaction were autonomy, heterosexuality, deference, endurance, order, nurturance, and abasement. Most of the factors also correlate with religiosity. This observation suggests that this college environment may be contributing more to the satisfaction of those students who are prone to score high in religiosity. (Author)

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A STUDY OF PERSONALITY NEED FACTORS WITH RESPECT TO COLLEGE STUDENT SATISFACTION IN A SMALL, CHURCH RELATED COLLEGE LOCATED IN A SOUTHERN STATE

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Student satisfaction is only one of several possible indices of how well a university functions, but it is a criterion to which the university must respond (Berdie, 1970). This study contends that the university should be aware of the personality needs which are associated with student satisfaction of its environment. The university should know, for example, whether its programs are satisfying the needs of those students who are possessed with a strong need for abasement, deference, orderliness or whether it is meeting the needs of those students who have a high need for achievement and autonomy. This study therefore, is designed to determine whether personality need factors are related to college student satisfaction.

The theory which served as a basis for this study was developed by Henry Murray to explain the dynamics of personality. Murray theorized that personality needs of the individual are either attracted or repelled by environmental presses (stimuli or environmental potential), and the congruency which develops from a reaction of certain personality needs results in satisfaction. He illustrates this concept by diagramming the

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"hedonic scale," which has points scattered intermittingly between "hedonically negative" and "hedonically positive" (Murray, 1938). The extreme points of this scale can be related to dissatisfaction and satisfaction respectively.

A number of studies tend to support Murray's position. For example, Wispe (1951) found that personality factors are related to satisfaction with teaching methods. It seems then that the teaching methods used by staff members at an educational institution can have an attracting or repelling effect on each student depending upon his personality.

Several studies (Pervin, 1967; Pervin and Rubin, 1967; Oppenheimer, 1966; Lundy et al, 1955) have investigated the dynamics of satisfaction by studying the relationship between satisfaction and the congruency of the perceived self concept and aspects of the environment. These studies seem to indicate that satisfaction does result from the similarities between the perceived self and selected dimensions of the environment. If satisfaction results from similarity between the perceived self and the environment, it seems reasonable to assume that specific environments will attract and repel different personality factors.

Stern has developed two measuring instruments based on Murray's concept of personality needs and environmental press. He designed the Activities Index (AI) to measure the environmental press of the college campuses and the College Characteristics Index (CCI) to measure the personality needs of college students (Pace and Stern, 1958). Most studies which utilize

the AI and CCI assume that satisfaction is the ultimate result of congruency between the two instruments. Berquist (1961) found that needs-press congruency for New Trier High School graduates in college was associated with satisfaction.

The assumption in the present study is that satisfaction ultimately results from the congruency between personality needs and psychological aspects of selected dimensions of a campus environment. The study measured the expressed satisfaction of the campus environment. The assumption was also made that personality needs which are attracted by or supported by the environmental presses are positively correlated with college student satisfaction and those personality needs which are repelled by the environment are negatively correlated with college student satisfaction.

Method

The subjects for the study were full-time students enrolled in a private, liberal arts college located in a southern state. The college is affiliated with the State Baptist Convention and attempts to (1) provide a liberal arts education for the enrichment of the cultural, academic, and spiritual life of the student, (2) provide background for graduate and professional studies, (3) provide professional and vocational training, (4) educate leaders for its denomination, (5) promote health and physical development, (6) contribute to quality of home li[illegible], (7) recognize talent and encourage achievement, and

(8) direct all efforts of the college toward the preparation of students for productive Christian living.

Approximately one-third to one-half of the total student enrollment live in campus housing provided by the college. Fraternity or sorority housing is not available to the students.

Since the data for this study were collected early in the school year, it was assumed that students who were enrolled in the school for the first time in the fall semester had not been enrolled long enough to have formed a stable opinion of the environment of the college. Therefore, only those full-time students who had been on the campus for at least one semester were considered to be eligible for participation in the study.

The Registrar of the college prepared a list of students who met the above criteria. From this list, 300 were randomly selected and asked to participate in this study.

The two instruments used in this study were the Edwards Personal Preference Schedule (EPPS) (Edwards, 1954) and the College Student Satisfaction Questionnaire (CSSQ) (Betz, Klingensmith, and Menne, 1970). The EPPS is designed to measure fifteen personality need factors. The personality needs are: Achievement, Deference, Order, Exhibition, Abasement, Nurturance, Change, Endurance, Heterosexuality, and Aggression. The CSSQ purports to measure college student satisfaction with respect to five dimensions of the college campus. They are: (1) working conditions, (2) compensation, (3) quality of education, (4) social life, and (5) recognition. The reliability and validity of both instruments were found to be adequate.

The instructions for the EPPS and CSSQ were given to the students during the first few minutes of one of their regularly scheduled classes. They were later given a packet which included both the EPPS and CSSQ. The students were instructed to complete the instruments sometime after the close of the class period and to return them at the next regularly scheduled class meeting. Those students who did not return the packet at the next class meeting were given additional encouragement to complete the instruments during subsequent class meetings. Of the 300 students who were asked to participate in the study, 226 (75.33%) returned the completed packets.

The data from the entire student group were examined to determine the degree of relationship between the domain of personality needs (one set of variables) and the dimensions of satisfaction with campus environment (another set of variables) by use of a canonical correlation analysis, a multivariate statistical technique. This technique was chosen because it was applicable to the nature of the data; that is, two separate sets of variables can be termed predictor and criterion variables.

The maximization of the relationship between the two sets of variables in the canonical correlation analysis is the same process that is used in the multilinear correlation except that in the multilinear correlation only one criterion variable is used whereas all of the variables from either set of variables can be used as criterion variables in the canonical correlation analysis.

In summary, it can be stated that the goal of canonical

correlation is to determine the relationship of one set of dependent variables to another set of independent variables. In the present study the goal was to determine the relationship of a set of personality need variables to a set of college student satisfaction variables.

Results

The canonical correlation analysis tends to weight variables in different combinations in an attempt to maximize the strongest relationship and to determine the greatest number of canonical relationships. Since the smaller domain (college student satisfaction) consists of five variables, a maximum of five canonical relationships between the two sets of variables were possible. The results of the canonical correlation analysis are presented in Table 1.

Insert Table 1 about here

The maximum correlation obtained by the first canonical relationship was .481. The personality need variables accounted for 23 per cent of the variance related to college student satisfaction. The chi-square test indicated a significant ($p < .0001$) relationship between personality needs and satisfaction domains.

The second canonical function was also found to be significant ($p < .05$). For the analysis of the research problem, then, there were two distinct ways to weight the variables of the two domains in a linear combination to obtain a

significant correlation between the two. The last three relationships were not significant at the .05 level; thus, only those variables associated with the first and second canonical correlations allow for meaningful statistical interpretation. The factors and their relative contributions from each of the two domains of the first and second canonical relationship are presented in Tables 2 and 3.

In an attempt to determine the unique contribution of each personality need factor to each college student satisfaction variable, Pearson Product Moment correlations were calculated. These correlations are for the most part low and insignificant between individual pairs of items taken one at a time from the personality and satisfaction domains. The personality variable, autonomy, seemed to relate negatively at a higher level to most of the satisfaction variables than the other personality variables. The variable autonomy correlated -.27 with social life, -.24 with working conditions, and -.27 with quality of education. Since these relationships were low it is apparent that the bivariate analysis did not provide any significant information regarding the relationship between the two total domains. Since the canonical correlation analysis disclosed a significant correlation, it appears that variables within each domain interact with one another and these interactions contribute greatly to the overall relationship between the domains. The analysis seems to further substantiate the use of multivariate statistics in analyzing complex sets of variables. When the data were analyzed using canonical variate analysis, the

correlation between the two composite sets was .21 units higher than the highest bivariate correlation and accounted for 23 per cent of the variance.

Insert Table 2 about here

The correlations of several variables from each of the two domains with the canonical axis merit special attention. By choosing an arbitrary cut off point (.30), it appears that the strength of the first canonical relationship can be explained in terms of the personality variables deference (.40), order (.39), autonomy (-.72), nurturance (.36), endurance (.46), and heterosexuality (-.58).

Insert Table 3 about here

All factors of the satisfaction domain tended to offer some contribution to the first significant canonical relationship. The variables social life (.66), working conditions (.60), and quality of education (.79), however, appeared to offer the largest contributions.

At this time it seems appropriate to examine the data of this study with respect to a inaccurate interpretation that is some times common in analyzing canonical correlation. Gullikson (1950) pointed out that an exceptionally high correlation between a variable from one domain and a variable from the other domain could cause a spuriously high canonical relationship

because the highly correlated variables may receive high weights and the other variables low weights in a way that could maximize the relationship. According to Thorndike, Weiss, and Davis (1968), two criteria can be applied to test for this limitation. First, the cross-correlation matrix should be inspected to determine whether there are any single combinations that correlate extraordinarily high. A check for the number of canonical relationships that are inherent in the relationship of the two domains of variables is a second test that can be used to test for this possible phenomena. When two or more sets of weights yield significant canonical relationships, it can be determined that no single combination of correlates are accounting for the majority of variance in the canonical relationship.

An examination of the cross correlation matrix for this study reveals that there are no significantly high correlations between single factors from each of the domains. Also, the fact that two sets of weights yielded significant canonical correlations is further evidence that no single set of factors contributed to the major portion of the variance common to the two domains.

Discussion

The results of the present study, which utilized a multivariate technique of canonical correlations, indicate that a significant relationship does exist between personality needs as measured by the EPPS and satisfaction with respect to selected dimensions of the campus environment as measured by the CSSQ. The findings do not imply causation but merely reflect

a relationship between the two domains. An undertermined number of variables are related to college student satisfaction and this study was able to account for 23 per cent of the variability. The results of the study tend to indicate that some personality needs are attracted by or satisfied by the same environment that may have a repelling effect for other personality needs. A study previously cited by Wispe (1951) would suggest that the same group of personality needs which seemed to be satisfied by one academic environment may be repelled by another type of academic setting.

The data in Table 2 indicate that six personality factors contributed rather heavily in the first canonical relationship. A post hoc observation that may lend some support for the explanation of the heavy contributions to the canonical axis of four of the personality factors (autonomy r = .72, deference r = .49, endurance r = .46, nurturance r = .36) may be reflected in a study by Tennison and Snyder (1968) on relationship between attitudes toward the church and personality characteristics. These four factors were also significantly correlated with religiosity (autonomy -.35, $p < .01$; deference .49, $p < .01$; endurances r = .13, p .05; nurturance r = .27, $p < .01$) in their study.

Abasement (r = .29), a marginal contributor to the canonical axis in this study, is also found to statistically correlate (r = .36, $p < .01$) with religiosity. The other personality variables, order and heterosexuality, which offered major contributions to the first canonical correlation in this study, were

correlated with religiosity in the same direction in both the Tennison and Snyder study and this study. The correlations, however, were not statistically significant in the Tennison and Snyder study.

The college in this study is affiliated with the State Baptist Convention, and among other objectives it attempts to provide enrichment of spiritual life, educate leaders for its denomination, and direct all efforts of the college toward the preparation of students for productive Christian living. It seems, then, that the college may be directing its program to appeal to at least some of the personality characteristics common to people who express more positive attitudes toward religion and the church.

The review of literature for this study suggests that the college may be attracting students with the personality needs which are correlated highly with the canonical axis in this study as well as fostering the growth and development of these personality needs. Stern (1966) found that the types of experiences offered by such colleges tended to attract students with specific personality traits. In respect to personality growth and development, Astin (1968) theorized that the college environment as an aggregate of stimuli is capable of changing the student's input. Results from one of his studies (1965) offers some evidence that student behavior tends to become more homogeneous with time.

Tennison and Snyder's study (1968) which was mentioned earlier, tended to indicate that four of the six personality

need factors that correlated significantly with college student satisfaction also correlated with religiosity in their study. In reviewing the aims and objectives of the college with respect to its attempt to educate leaders for its denomination and to direct all efforts of the college toward the preparation of students for productive Christian living, it appears that the college has created an environment which is fostering the growth and development of the affective domain of persons who are religiously inclined. This is evidenced by the apparent attraction of personality needs such as deference, endurance, and nurturance which seem to be common with persons who rate high in religiosity and the repellence of the personality need autonomy which in general seems to be alien to personalities that rate high in religiosity.

The results of this study can be implemented by the administration of the college in various ways. First, the Director of Admissions may want to relate the results of this study to counselors and others who assist students in finding the college environment that may contribute most effectively to their affective needs as well as to other aspects of their growth and development. Second, since Pervin and Rubin (1967) found that dissatisfaction tends to be related to college dropouts, the faculty and staff may be interested in conducting a self study to determine ways the college can modify its environment to insure wider appeal to a more diverse range of personality needs.

Student personnel officials may want to investigate the

possibilities that the present study holds for understanding and counseling individual students and groups of students who appear to react with more dissidence to the college environment. A more thorough understanding of dissident groups may aid in preventing or reducing the magnitude of any dissent that may develop in the future.

The college will need to use diverse research methods in investigating the results of its attempts to meet its aims and objectives. The results of this study can be used as an integral part of such a research project.

Summary

The canonical correlation analysis of this study indicated that a significant correlation exists between personality need factors and college student satisfaction. The correlation implies a relationship and does not relate to any factors of causation.

The analysis indicated that individual factors from within the two domains were not highly correlated. The highest correlation reported in the cross-correlation matrix was .27. The significant canonical correlations resulted, then, from the interaction of the individual variables which maximized each composite variable from each of the two domains. These two composite variables, personality needs and college student satisfaction, indicated significant correlation at the .0001 level of significance in the first canonical function even though only 23 per cent of the variability can be accounted

for by this study. This study, therefore, indicates that personality need factors and college student satisfaction are significantly correlated when the individual variables are maximized as a composite, but meaningful correlations were not shown to lie between independent factors of the two domains.

All of the college student satisfaction variables offered some contribution to the first canonical relationship; however, quality of education, social life, working conditions, and recognition seem to be the major contributors.

Students who expressed the most satisfaction with their college environment, in general, tended to exhibit lower needs for autonomy and heterosexuality and higher needs for deference, order, endurance, and nurturance than their classmates who did not express such a high degree of satisfaction. Most of the factors also correlate with religiosity. This observation suggests that this college environment may be contributing more to the satisfaction of those students who are prone to score high in religiosity.

TABLE 1

Canonical Correlations Between Personality Need Factors and College Student Satisfaction

Canonical Correlation	Roots[a]	Chi-Sq.	D. F.	Prob.
.481	.231	56.570	19	.0001
.361	.130	30.053	17	.0274
.289	.084	18.817	15	NS
.257	.066	14.739	13	NS
.209	.044	9.606	11	NS

[a]May be directly interpreted as the proportion of the total variation explained by the canonical relationship.

TABLE 2

Canonical Correlations Between Personality Need Factors and the Canonical Axis

Variables	Correlations with the Composite		Variables	Correlations with the Composite	
	First	Second		First	Second
Achievement	.10	.28	Dominance	-.04	.23
Deference	(.49)	-.26	Abasement	.29	(-.59)
Order	(.39)	-.12	Nurturance	(.36)	(.30)
Exhibition	-.11	.24	Change	-.22	-.03
Autonomy	(-.72)	.08	Endurance	(.46)	-.07
Affiliation	.13	-.03	Heterosexuality	(-.58)	.27
Intraception	.01	.20	Aggression	-.18	.11
Succorance	-.17	.06			

Note.---These correlations with the canonical axis that will be discussed are indicated by parentheses and are above an arbitrary cut off point of .30. It should be noted that even though .30 is arbitrary, most authors who employ the use of canonical analysis tend to report their results in similar fashion.

TABLE 3

Canonical Correlations Between College Student Satisfaction and the Canonical Axis

Variables	Correlations with the Composite	
	First	Second
Compensation	.29	(.63)
Social Life	(.66)	-.16
Working Conditions	(.60)	.17
Recognition	(.35)	(.67)
Quality of Education	(.79)	(.55)

Note.---Those correlations with the canonical axis that will be discussed are indicated by parentheses and are above an arbitrary cut off point of .30. It should be noted that even though .30 is arbitrary, most authors who employ the use of canonical analysis tend to report their results in similar fashion.

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